

# INTERNATIONAL STANDARD

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**Printed electronics –  
Part 401: Printability – Overview**





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**Printed electronics –  
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## CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 Overview of the IEC 62899-4XX series .....	8
5 Outlines of the standardization of printability in printed electronics .....	9
5.1 Outline of measurements of qualities .....	9
5.2 Outline of requirement for printability .....	10
5.3 Outline of the analysis and compliance test methods .....	10
5.4 Outline of the measuring methods for environmental conditions .....	10
Bibliography.....	11
Table 1 – Structure of IEC 62899-4XX series .....	9

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## PRINTED ELECTRONICS –

## Part 401: Printability – Overview

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International Standard IEC 62899-401 has been prepared by IEC technical committee 119: Printed electronics.

The text of this standard is based on the following documents:

FDIS	Report on voting
119/137/FDIS	119/144/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62899 series, published under the general title *Printed electronics*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

## INTRODUCTION

This part of IEC 62899 contains an overview of measurements of and requirements for printability in printed electronics. This document provides highly reliable measurements for the comparable evaluation and the necessary specifications for the quality and reproducibility of printed patterns.

The requests from industry for this document are the guarantee of both the quality and reproducibility in order to facilitate international trade and enhance user value in the field of the printed electronics.

## PRINTED ELECTRONICS –

### Part 401: Printability – Overview

#### 1 Scope

This part of IEC 62899 provides an introduction to the rest of the IEC 62899-4XX series and explains its modular structure. The IEC 62899-4XX series establishes requirements for the printability of printed electronics. These requirements are stated as measurement of quality, reproducibility, analysis and compliance test methods, as well as measuring methods for environmental conditions.

The IEC 62899-4XX series specifies the measurements and the requirements of both the quality and the reproducibility of printed patterns as the result of the interaction of printing media, inks, substrate, and environmental conditions.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050 (all parts), *International Electrotechnical Vocabulary (IEV)* (available at [www.electropedia.org](http://www.electropedia.org))

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

##### 3.1

##### **printed electronics**

technology for the creation and production of electrotechnical products by means of printing methods

Note 1 to entry: This technology has potentially a number of application fields.

##### 3.2

##### **printability**

interrelationship of inks, other functional materials and substrates in conjunction with printing equipment in order to achieve the desired electrotechnical function

##### 3.3

##### **printed pattern**

set of electric and electronic device, parts, and circuits, which is printed with electronic functional inks on the surface of substrates by means of various printing techniques